

Amendments to the Specification

Please replace paragraph [0010] with the following amended paragraph:

[0010] FIG. 1 shows a block diagram of one embodiment of a system for maximizing I/O buffer utilization in an I/O controller. System 100, in one embodiment, includes central processing unit (CPU) 110, memory 120 and chipset 130. CPU 110, memory 120 and chipset 130 may be any processor, memory and chipset known in the art, respectively. In other embodiments, chipset 130 may be a peripheral component interconnect (PCI) link, PCI Express EXPRESS link or other similar memory controllers using other bus architectures. PCI EXPRESS is a technology for implementing a bus architecture known under the PCI EXPRESS trademark.

Please replace paragraph [0020] with the following amended paragraph:

[0020] FIG. 2 shows a block diagram of one embodiment of the I/O controller of FIG. 1. I/O controller 200, in one embodiment, includes transaction layer 205 which contains credit management logic 210 to manage the flow of data between memory (e.g., memory 120) and I/O buses (e.g., I/O buses 150, 160) in a computing device. In one embodiment, transaction layer 205 implements ~~PCI Express~~ PCI EXPRESS bus protocol. In other embodiments, transaction layer 205 implements PCI bus protocol, PCI-X bus protocol, industry standard architecture (ISA) bus protocol or other I/O transaction layer bus protocols for other bus architectures. PCI-X is a technology for implementing a bus architecture known under the PCI-X trademark.

Please replace paragraph [0021] with the following amended paragraph:

[0021] Credit management logic 210 directs the flow of data between memory and the I/O buses by determining an available amount of memory credits in I/O controller 200 and keeping track of the amount of credits sent and received by I/O controller 200. In embodiments implementing ~~PCI Express~~ PCI EXPRESS bus protocol, each credit managed by credit management logic 210 is 16 bytes of data. In other embodiments using other bus architectures, depending on the protocol used, each credit will be in the range of 1 byte to 16 bytes of data.

Please replace paragraph [0058] with the following amended paragraph:

[0058] The system to maximize buffer utilization in an I/O controller may be implemented in software, for example, in a simulator, emulator or similar software. A software implementation may include a microcode implementation. A software implementation may be stored on a machine readable medium. A "machine readable" medium may include any medium capable of storing or transferring information. Examples of a machine readable medium include, but are not limited to, a ROM, a floppy disk, a CD-ROM, an optical disk, a hard disk, a radio frequency (RF) link, and similar media and mediums.